



THE SPELEOGRAPH

PUBLISHED BY THE OREGON GROTTO
OF THE
NATIONAL SPELEOLOGICAL SOCIETY

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Assistant: Patty Silver

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Grotto of the National
Speleological Society

Oregon Grotto general **MEETINGS** are held on the 3rd Friday of every month, at 7:30 P.M., and until further notice, will be held at the Southwest Washington Research Unit, 1918 N.E. 78th St., Vancouver, Washington. (¼ mile east of Interstate-5 on 78th St.)

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1982 **AUGUST** 1982

SUN	MON	TUE	WED	THU	FRI	SAT
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1982 **SEPTEMBER** 1982

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Cavers Calendar

1982 **OCTOBER** 1982

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1982 **NOVEMBER** 1982

SUN	MON	TUE	WED	THU	FRI	SAT
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28	29	30	F.M.	L.Q.	N.M.	F.Q.

August 20, Oregon Grotto General Meeting, 7:30 p.m., at the Southwest Washington Research Unit, 1918 N.E. 78th Street, Vancouver, Washington. (¼ mile east of Interstate-5 on 78th St.)

August 14–15: Land Use Planning and Cave Management Workshop. To be held at the Yale School (a few miles west of Cougar, Washington), beginning at 10:00 a.m. Saturday and extending into Sunday if necessary. See details elsewhere in this issue.

September 4–6: Northwest Caving Association Annual Meeting. To be held at Campbell River, Vancouver Island (exactly the same place as the 1977 regional meet), at Bill Boudillon's home. A full schedule is planned: speleo-politics, challenging caves, decorated caves; bring cameras, wet suits, vertical gear, canoes, etc. Plan on camping out there as well as going and coming. Further information is in the mail to Larsons or call Bill Bourdillon at (112) 923 - 4360.

September 4–6: Consolation Trip: (for those unable to go to regional meet): To be held at Siah Butte, near Bend. Contact Larsons for more information.

September 10: Oregon Grotto Executive meeting. At Silver's, 912 N.W. 50th, Vancouver, Washington.

September 18: Diamond Craters Dedication Ceremonies. Tentatively scheduled for this date, to begin at 1:00 p.m. at Lava Pit Crater. All are invited for the speeches and a tour afterward.

COVER: A party from the '82 NSS Convention entering South Ice Cave. By Ellen Benedict.

CAVE MANAGEMENT WORKSHOP

On August 14 & 15, Libby and Jim Nieland are sponsoring a Land Use Planning and Cave Management workshop. The reason for the meeting is to discuss the following:

1. The forthcoming forest management plan for the Gifford Pinchot National Forest.
2. The public involvement process for input into the plan.
3. How cavers can best make their interests and concerns a part of the plan.
4. To discuss what constitutes a management plan for caves and to write a suggested plan.

Limited sleeping bag space is available at Nieland's on a first come first served basis. Please call ahead if you wish to stay there. Camping is also available about a mile away at Speeleyi Hill View Park for \$3.50–7.50/night with hot showers.

OG APE CAVE TRAIL PROJECT COMPLETED

The Ape Cave Trail, between the upper and main entrances is finished. On the 25th of July, Oregon Grotto members put the finishing touches on the 6,810-foot trail. If you haven't walked it, do so at your earliest convenience. It is very interesting.

THE SQUAW RIDGE LAVA FIELD: NEW CENTRAL OREGON TERRITORY FOR THE DESERT-LOVING LAVA TUBE HUNTER

by Craig Skinner

Like to hike in the hot sun? Don't like to camp around water? Consider yourself to be in good shape? Like to pound your car on desert roads designed for high-clearance cattle? Like to wander through miles of hot and unexplored basalt flows in the hope of an undiscovered lava cave? If your answers are yes, I have the place for you—read on.

Welcome to the Squaw Ridge lava field, a 26 square mile complex of primarily pahoehoe basalt flows located at the upper border of the Fort Rock Valley of central Oregon. The field lies directly east of the Devils Garden (Derrick Cave) lava flows and just northeast of the Four Craters lava field. These last two basalt fields were probably extruded in approximately the same time period as the Squaw Ridge flows. All three of the basalt fields are clearly structurally related; north-northwest trending faults and lineaments (linear surface trends) tie them all together.

Geologic studies including the Squaw Ridge lavas are almost nil—it rates barely a mention by Allison (1979) and a single chemical analysis of the lava appears as an aside in Heiken, et al (1981). The most extensive description turns up in Peterson and Groh's summary of recent volcanism in central Oregon:

"A large unnamed basalt cone later called Lava Mountain by Allison (1979) lies to the south of Squaw Ridge and is called the Squaw Ridge lava field in this report. This broad, shallow cone covers an area 6 to 7 miles in diameter mainly in T.24 S., R. 17 E. This lava field was not examined in detail because of poor access and difficult terrain; however, both the rough, clinkery aa lava and the smooth-crustured ropy pahoehoe lava were noted at the edge of the flow. One or more cinder cones top this shield-shaped cone and probably were formed during the last eruptive phases. Two 'steptoes' or islands of older rock were seen within the eastern part of the lava field when viewed from the top of the northernmost cinder cone in the Four Craters field."

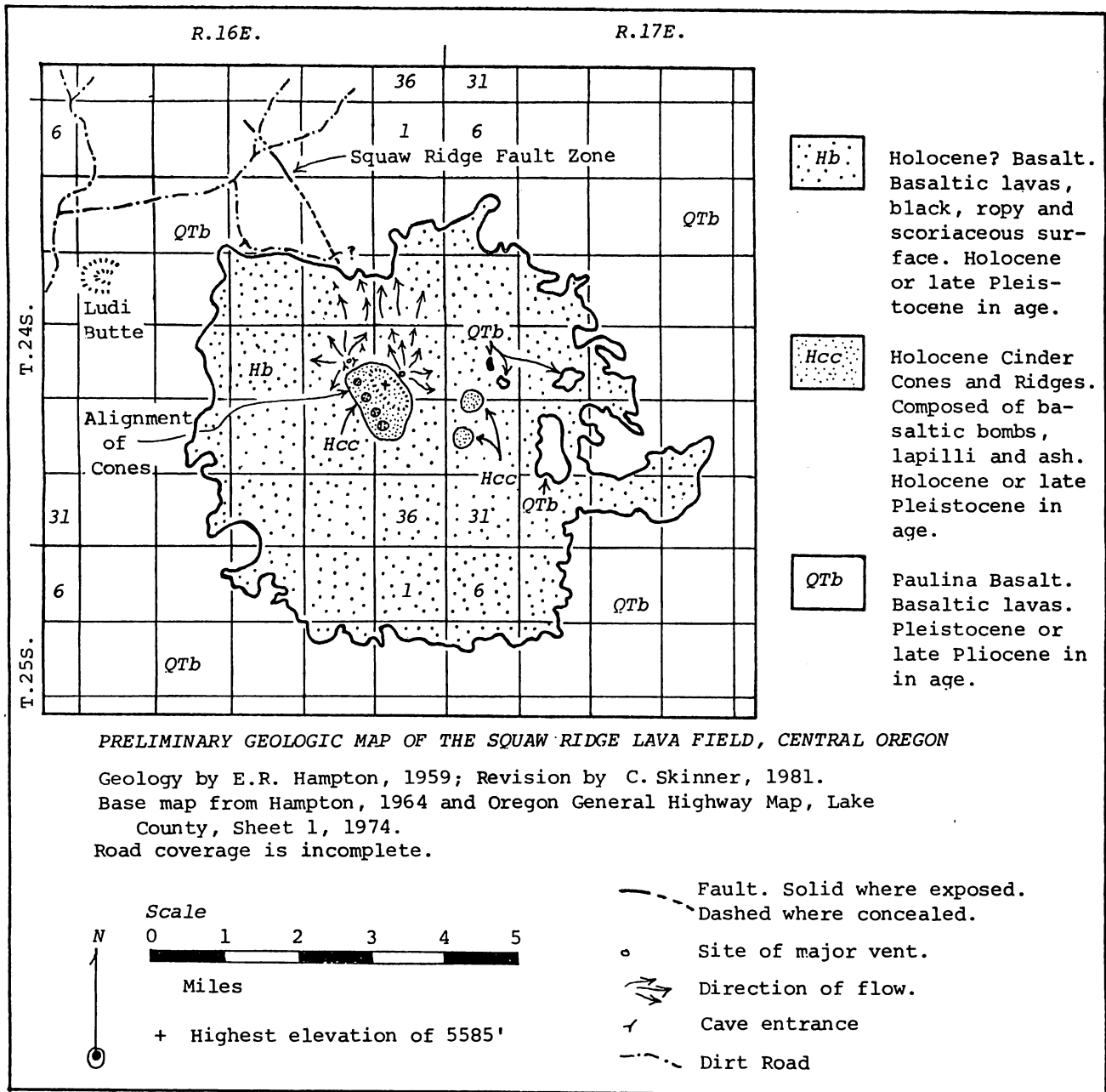
Geologic map coverage of the Squaw Ridge lavas is provided by Hampton (1964) and Walker, et

al (1967), though neither is particularly detailed. The age of the basalts is estimated by Hampton (1964) and Peterson and Groh (1963) to be Recent, or less than about 12,000 years. Allison (1979) feels that the Squaw Ridge flows, based on their more weathered appearance, are older than the adjacent Devil's Garden flows. He also mentions that none of the three most recent lava flows in the area shows any sign of wave erosion (from the shallow lake that existed here up until about 15,000 years ago), fixing their upper age as Recent or very late Pleistocene. All three flows have been dusted by volcanic ash; it's likely that this originated as Mount Mazama (Crater Lake), which would suggest a lower age limit for the flows, of about 7,000 years.

I got interested in the Squaw Ridge area in the summer of 1980 when I ran across what I called the Squaw Ridge Rift System (Skinner 1980). The name for this same feature that I've used on the accompanying map, the Squaw Ridge Fault Zone, is more accurate; rift systems or zones are usually the sites of volcanic activity, not the case along the Squaw Ridge fault. All last winter I was sustained by the thought of coming back and climbing to the peak in the center of the lava field to watch a moonrise over the Fort Rock Valley. And so, this summer (1981), Scott Murdock (also hooked by the same idea) and I headed back to the high desert lavas at Squaw Ridge for a closer look.

Scott and I had decided to come in from the north. This appeared, on aerial photos, to give us the shortest walk in to the central summit cone. There also looked to be a road along the northern border of the lavas. The "road," as it turned out, would have suited a jeep, but not my Karmann Ghia. After two miles of under-carriage trashing, we finally got to a ravine that appeared to be a surface trace of the fault zone that I mentioned. This would be the closest point (from anywhere in the region) to the central cones, so we packed up and headed out (with lots of water), equipped for two days of lava field cruising.

Five minutes after we hit the edge of the flow, it was clear that the hiking was going to be a lot harder than we'd imagined. In front of us was a veritable labyrinth of lava channels, giant



pressure ridges and rubble. It was, hands down, the worst looking piece of uphill hiking that I'd ever contemplated. It was also beginning to get hot. But after a year of waiting, we were too close to bail out (though this was seriously discussed several times during the day—only Scott's fanatical determination got us up the last part).

Eight long hours and one cave later we finally reached the base of the western cinder cone. (It's less than two straight-line miles!!) Do yourself a favor and don't hike on dark lava all day in the hot sun—I arrived at the cone with a fledgling, soon to blossom, case of heat exhaustion. After two hours of shade, water and salt tablets,

I couldn't wait any longer and climbed up to meet Scott on the crater lip of the cinder cone. From our campsite here it wasn't far to the summit and one of the finest desert views I've had the pleasure to enjoy. Up on the summit ridge were a few piles of rocks built, no doubt, by exultant hikers who had conquered the lava field below. We left a little surprise in one of the piles for the next traveler that happens along.

The summit is actually a 250-foot long ridge of cinders and scoria. Paralleling the ridge, and invisible from the desert plain 800 feet below, is a striking alignment of four sizeable cinder cones. Directly lined up with cones in the

distance to the southeast were the four similarly-sized cinder cones of the Four Craters lava field. All things considered, a fine place to watch a sunset over Newberry Volcano and a summer solstice moonrise over the desert.

Now, to the business of caves. We ran across a total of four different lava caves in the two days that we spent in the lava field. Remember, too, that we covered only a *very* small percentage of the flows and that cave-hunting was not the main agenda for this trip. The caves, in the order that we found them, are:

Cairn Cave (Sec.14,T.24s.,R.16E.): Named after a cairn-like pile of lava near the entrance, this was the largest and most well-developed of the lava tubes that we found. Entry is through a roof collapse that divides the cave into two segments, each about 150 feet long (though there could easily have been more on the downslope end—we had a long way to go and didn't spend much time here). The fifteen-foot diameter, sand-floored conduit has a well-preserved interior lining, covered in many places with short lavacicles. The ceiling has slumped while still plastic and in the downslope segment sags nearly to the floor in a few locations. This tube is a good example of a roofed-over lava channel; the arch-shaped ceiling profile appears to have resulted from the accretion of lava along the sides of the channel as levees that eventually merged to roof the channel. Inside, there are what looks to be vestigial skylight-openings that existed while the lava channel was still active, but which were covered in the later stages of activity. This was the only former lava channel in the area (that we found) that had not completely collapsed at the cessation of activity. The basalts must have been very fluid. Cairn Cave is aligned nearly north-south (pointing at the summit) and is located about 1000 feet from the northern margin of the flow.

Burnout Cave (sec.23, T.24s., R.16E.): This is a small surface tube located in a major vent area at the northwest base of the westernmost cone near the summit (see the map). The entrance is a hundred feet or thereabouts from the base of the cone. This cave is about 30 feet long, 10 feet long, 10 feet wide and 3 to 4 feet high. The ceiling is covered with short lavacicles.

West Vent Cave (Sec.23, T.24s., R.16E.): Located about 200 feet northeast of Burnout Cave is another small cave. It can be found at the northern border of the same vent area mentioned previously. Details on this cave are pretty hazy. I had developed a well-advanced case of heat exhaustion by the time we got this

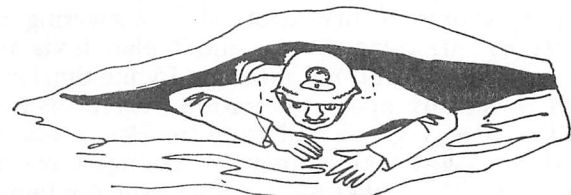
far, and was rapidly losing interest in anything other than keeping my lunch down.

We also ran across another cave entrance on the way out the second day, but I was still feeling none too recovered from the day before and didn't look around. A six-foot drop through a two-by-two foot entrance skylight made up the entrance. The cave location is about 1200 feet (very approximate) due north of the western cinder cone. The location of this, as well as the other caves, is shown on the very preliminary geologic map.

There are undoubtedly many more lava caves to be found in the Squaw Ridge lava field. The chance of finding a major lava tube here is, I think, very good. If you enjoy undisturbed solitude and are willing to deal with the rugged, dry terrain and car-eating roads, It's a fine place to spend some time and maybe find a cave or two.

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REFLECTIONS, SOMETIMES IN THE MIND AND SOMETIMES IN THE RAIN: OR, THE NSS CONVENTION IN BEND, OREGON

by Ellen Benedict

Each attendee at an NSS convention experiences a different convention. This is my account of a wondrous adventure at the Bend convention. If you told the events, the account would be very different! So read on!

It is 2:30 p.m. on Friday: Ben and I arrive with Alice Knapp and Richard, our one-year-old grandson—just in time to see the school custodians before they leave for the day. Rick Pope has already made the grand tour around the building and grounds. We admire some of Rick and Becky Taylor's signs. One irate attendee bounds up and demands entry into the building. I explain that the campground isn't open until noon and that then the building and showers will be open. Ben takes Alice and Richard to her in-laws south of Bend and returns with the truck. Ben sets up our tent while I unload materials for registration—Sims and Devereauxs are doing the same. I help Ben tack bulletin boards on the registration shack. I watch Becky begin the "Welcome Cavers" sign. The hot tub arrives from Texas. Lynne and I go into town to see our food suppliers. (Thank goodness, Esther Gruber McEvoy did the preliminary work on food even though unable to get off work for convention.) We return to Mt. View in time for me to discuss the Geo./Bio. trip with Larry Chitwood. Larry discovers that a "C" is missing from Becky's sign. We discuss changing the "M" to a "V" but add a "C" instead. We put up the banner with considerable banter. I go to sleep at the sound of bagpipes.

"Ellen, sorry to bother you, but Ernst Kastning is calling long distance for directions to Malheur Cave." I arise. Soon Jo Larson calls to say that Dave Jones will arrive within the hour with the *guidebooks*—what a relief!

Saturday at dawn: I must make a list of everything I must do today! A horn toot announces arrival of Bob Ehr, Diablo Grotto members and the *programs*. I breakfast while answering all sorts of questions. Becky and I plan texts for more signs. About mid morning Lynne Sims and Bill Devereaux open registration with me as first victim. Becky gets a call from the *Bend Bulletin* and I suggest taking them to Youngs Cave on Sunday. (The *Bulletin's* Monday issue contained an article featuring Emily Davis Mobley.)

I answer questions about field trips, promising more details when Dennis Glasby arrives on Sunday. I find a crew to move NSS Bookstore and Speleobooks materials into the upper gym. Gale Beach begins meeting flights at the Redmond Airport. Susan Foster buys fruit for the Sunday morning Geo./Bio. "Coffee." IT BEGINS RAINING!

A steady stream of registrants arrive. Rick Pope establishes a camp guard at the entrance to the campground. (Cavers from VICEG man this for much of the wet night.) We begin hearing favorable reports about Susan Lindstedt's Malheur Cave trip and Halliday's St. Helens trip. More people, more questions and more rain! I retire at 2:00 p.m. because I am leading the Geo./Bio. trip which leaves at 7:30 a.m. Sunday morning.

Sunday morning dawns clear—thank goodness! I don't want to lead a three-bus trip for over 120 persons in the rain! I carry the bullhorns over to the porch in front of the school where Lynne is already preparing the "Coffee." Ginny Tipton and Susan Foster punch the tickets and all my guides arrive. Doug Troutman and I will lead bus no.1; Susan Foster and Paul Engstrom, bus no.2; and Russ Harter and Larry Chitwood, bus no.3. Lynne sells tickets to stanbys and Phil Whitfield arrives just as we are ready to pull out! We are off at last for stop no.2 at Lava Lands Visitor Center. Everthing goes like clockwork except when I miss one turn and we take a slight detour.

Cynthia Fiack and her wonderful Mother Lode Grotto crew provide lunch at Paulina Lake and dinner at Fort Rock State Park. We arrive back at Mt. View at 9:45 p.m. as planned. I get the mileages for the buses, answer a long distance call and locate the bullhorns. I stay at registration while Lynne makes the midnight bank deposit.

It is Monday, and I do many odd jobs before Ben hands me breakfast. (I don't know how I would have survived the convention without him; he saw to it that I ate.) I hear a complaint that "You have squares of toilet paper instead of rolls." "Just be thankful to have T.P.," I mutter. I show Karen Kastning where to set up the photo salon in the Commons, likewise Ernst Kastning, the maps, and John Baz-Dresch, the graphic arts. Sandy Van Luik puts up my display

of 20 posters from the "Atlas of Volcanic Phenomena." Ginny Tipton and Becky Taylor put up the display in the glass cases for the bat photo drawing. At 9:00 a.m., Lynne Sims and I greet the BOG on behalf of the '82 convention staff. We also set up coffee and rolls for them. I show Andrew Foord where to set up Publication sales next to the NSS bookstore and Speleobooks; I check to see if they are happy. Meanwhile, Susan Foster has taken charge of the Wendy's hamburger detail for noon lunches (bless her).

Over my hamburger, Alise Curl, Phil Whitfield and I try to cope with the loss of Joe Fackler who was to supervise the Howdy Party. We run through the details and plan to leave Mt. View at 3:00 p.m. for Lava River Cave. As we leave, a few drops of rain begin falling. Rick Pope searches for the tarps which he bought and we all go out there. Unfortunately it is raining hard by the time we arrive and we don't have enough plastic covering. Rick says that he cleaned Bend out of tarps after the convention attendees had gotten most of them during the Saturday night storm. I send Doug Bradford in to get roll plastic but even that is hard to find! Buses begin arriving; some people go caving, some stand in the rain

complaining and others stand under the tarps. Where is the food? And where is the roll plastic? Heavier rain arrives with the food and roll plastic.

I hop the first bus back to Mt. View School where I arrange to transfer the Howdy Party to the cafeteria. For a while we have two parties going at once! By 10:30 p.m. the last bus comes in from Lava River Cave and Jerry Zimmer arrives with the drinks. The Tall Timber provides dance music and the Speleo-Auction raises over \$1000 for worthy causes! At midnight, all join us to clean up! Doug Medville thanks me for the memorable Howdy Party. I wonder how I got the honor (or blame), I only spent the last five hours rescuing it, without any dinner too. Oh well, the convention chairman is indirectly responsible for everything I guess!

Yes, it is Tuesday! People begin registering as soon as registration opens. I tour the building to discover that most folks are very happy with Mt. View as a convention site; it is a wonderful place one lady informs me. She really likes the Commons area and the campground! I find that Dave McClurg's Caver's Short Course is the hottest event in recent convention history. Bill Cuddington really likes having company during the vertical contesets. Generally the vertical folk are isolated off in a distant building and never see any other events. Bill and Dave really liked the gym. Rob Stitt and I are interviewed by the Bend TV channel before Ernst leads them to Young's Cave. How convenient it is to have a cave so close to our convention site.

At noon over my Wendy's burger, I conduct the business meeting for the Biology Section. Then Libby Nieland and Mark Perkins take the biologists off for a rainy trip to Derrick Cave. I take pictures of the campground and sit talking in the sun with Karen Kastning about the arrangements for the photo salon, and the '78 Texas convention. Ernst returns from Young's Cave and we all plan dinner in town at a place where we can see the TV. After dinner I listen to snatches of the Hodag Concert, put on by the Diablo Grotto. Lynne and I do a quick calculation on finances and decide that we will break even. Folk are still registering. I OK the publication of Peggy Fowler's cartoon of the Howdy Party in Vulcan's Voice which Ernie Coffman is editing.

Many thanks to Peggy Fowler of Golden, Iowa, for the cartoon of the '82 NSS convention's Howdy Party, on the cover of last month's Speleograph.

Wednesday morning dawns without rain! Oh! do we love that pumice soil in the campground which means that everyone isn't getting stuck in deep mud! Gale Beach and I sit in weak sunlight to discuss the Crater Lake trip. I locate addition-

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al guides for Lavacicle Cave trips. Still more folk are registering and the T-shirts are nearly sold out! I pop into the Vulcano. Symposium long enough to give my paper, "Speleoliferous lava flows associated with the Brothers and subsidiary fault zones of central and southeastern Oregon." The title is part Halliday and part Benedict. The Speleo-Olympics is going well! I check with Janet McClurg to see how many more prizes she will need for this event. Bill tells me to plan on signing the vertical contest certificates—surprise, I didn't know I had this duty. Rick Pope is again practicing for his St. Helens slide program (an excellent show by the way). I meet the belly dancers and find them a dressing room. The evening entertainment is superb—Rick's slide show, belly dancers and the San Carlos Mountain Band: the latter two sent by Joe Fackler of Gem State Grotto. "Ellen, there is no hot water in the women's shower room!" I head for the custodian and find Lynne Sims on the same errand. After checking registration I retire only to listen until 1:00p.m. to some noisy teenagers in the next tent! I chew them out and ask them to move to the noisy camping area! Quiet reigns!

It is Thursday and we can see the sun and the Cascade peaks. What a wonderful day for the Crater Lake trip! I board the bus and talk a little bit about the geology and express the wish that I could go along to see snow at Crater Lake. Most convention attendees are having a wonderful and good feeling abounds at the '82 convention! We bask in the sunlight! I visit the NSS bookstore to arrange for their boxes to be taken to the post office on Friday at 3:00p.m. I watch the second screen go up for the photo salon, realizing that I didn't have to ask anybody to do it. Alice Curl and I discuss the arrangements for the banquet; who is to sit at the head table, etc. I check with Alice Knapp about some problem in the child care room and give my paper, "Amber rat, tephra and fossil pollen, or how Mount St. Helens relates to pack rats in caves," for the biology session. It's nice to be with my fellow biologists for *even* a little while! I find my Wendy's burger at registration and tell them about packing up items that need to be mailed. We attempt to set prices for the left over convention publications. This task takes the NSS officers a lot of time because we are the first convention in several years to break even at the convention. Jo and Charlie Larson arrive and I get the final bills for the two guidebooks which the Oregon Grotto Press did such an excellent job of producing! I notice that Ben is making one of his security rounds. He tells me that Charlie Baker stood his time on guard duty too.

Things are now running so well that it is a shame to end the convention. I notice Rick Pope out with a pickup truck collecting trash. Roger Silver, Susan Foster and Rick Coles (VICEG) all donated time with their trucks too. There may be others whose names I didn't hear too. Libby Nieland agrees to lead a Lavacicle Cave trip on Friday morning. Marti Gerdes, the Bend correspondent

for the *Oregon Journal* appears to interview me. I introduce her to a number of NSS members who are standing around the Commons area. She decides to go on the Friday Lavacicle trip. (See her article in the *Oregon Journal*, Star Edition, July 8, 1982.) I grab a bite to eat, then Lynne and I go through our budget with Paul Stevens showing him that we are actually breaking even! Karen Kastning begins the photo salon., a truly outstanding event! It is an honor to have one's slides shown in the salon. Both Rick Pope and Becky Taylor are so honored! As I go to my shower, I stop in the Commons area to admire the carbide lamp collection displayed by Roger and Patty Silver. Roger recently bought the collection from Charlie Baker.

It's Friday and raining again! Thank goodness we aren't having the banquet outdoors! Alice Curl and I call on Mark Johnson at North's Chuck Wagon about the timing and food for the banquet. We decide to use the "Welcome Caver" banner as the apron for the head table and detail Bob Ehr to take it down to dry off. Registration is packing up while taking care of new registrants, selling publications, banquet tickets, and T-shirts. I dash through the rain to the upper gym where publications sales are all packing up. I remind them that all the tables are to disappear at 3:00 p.m. so that they can be moved into the cafeteria at 5:00p.m. for the Banquet. In the Commons, I watch the BOG struggle to hear above the chatter of happy cavers and cries from the baysitting room. I offer President, Rob Stitt, another room but he refuses, saying that the BOG can speak up! I answer the various complaints about the BOG's demand for silence by saying that "The BOG decided to hold their meeting in the Commons and my staff is too busy to keep people silent."

Someone again complains about the squares of toilet paper. (If that is all he has to complain about, it must be a great convention!) I watch in amazement at the short time it takes to set up the banquet. Alice Curl has her crew from Interlakes Grotto as the security force. She counts folk entering the door so we won't be billed for extra meals. We begin serving at 6:15p.m. and are through in less than an hour—not bad for serving 480 persons! Mike Sims is M.C. and Dr. Tom Benson enralls us all with his slide talk about Mount St. Helens. Everyone joins in putting away the tables and chairs. The '82 CONVENTION IS OFFICIALLY OVER! Ben and I join the campfire for a few minutes!

On Saturday I again see the dawn. As I say goodbye and "see you all in West Virginia at the '83 convention," I accept the praises for an exceedingly successful convention knowing that it couldn't have been done without the help of so many volunteers from the Northwestern and Western regions and elsewhere! A HUGE THANKS TO EVERYONE WHO HELPED IN EVEN A SMALL WAY!

Lynne reports that 557 persons registered. This

convention is in the "black financially," a first in several years! This year the NSS won't have to pay bills left over from the annual convention. As a matter of record, the Northwestern and Western regions each get a \$250 honorarium for putting on the convention. By the way, the custodians really liked our group and would welcome us back anytime! We left the grounds much cleaner than we found them.

The Oregon Grotto helped in a big way at the '82 convention. In addition to those mentioned above, I wish to thank John Allen, Kathy Block, Don Denbo, Ron and Molly Foord, Dean Kenty, George and Cathy Long, Jim Nieland, Steve and Laura Poulsen, Wayne and Keith Schoonover, Dave Sexton, Craig Skinner, Vada Slabic, Mary and J.R. White, Jim and Beth and Sara Wolff. If I've missed any OG folk, your thanked too.

Money Wrench

DUES DUE IN JUNE

Van Sickle, John. 6-17

DUES DUE IN JULY

Gilsen, Leland & David.. . . . 7-18

Nieuwenhuis, Luurt & Jeanette. 7-10

DUES DUE IN AUGUST

Turney, Carl. 8-21

DUES DUE IN SEPTEMBER

Benedict, Ellen, Ben. 9-11

Howarth, Frank. 9-15

Lonergan, Rick. 9-11

Magee, Bill. 9-5

Schoonover, Wayne. 9-16

Slabic, John, Vada. 9-11

NEW MEMBERS

Landchild, Terry Childress

Mosser, James & Cynthia

DROPPED THIS MONTH IF DUES NOT PAID

Eide, Stuart

Perkins, Mark

Smith, Dave & Dianne

MEMBERSHIP DUES are: Individual, \$6.00/yr. Family of two, \$7.00/yr. Family of three or more, \$8.00/yr. Please make checks payable to Oregon Grotto and mail or give to Jo Larson, Membership Chairman, 13402 N.E. Clark Road, Vancouver, Washington 98665. If you wish a receipt or membership card mailed to you, please include a stamped, self-addressed envelope.

MOUNT ST. HELENS WANDERINGS

by Clyde M. Senger, NSS 14137

It seemed so strange. After almost two years of strict control, the Forest Service red zone gate by the diversion canal was open and there was nobody in sight. Of course, the land beyond was no longer the red zone but then that supposedly had been the situation in March and it had been closed by an eruption alert. Now, May 13, there was another eruption alert but still anyone could go in. Things do change. It seemed even stranger for some reason on the 14 June trip probably because there were loaded logging trucks roaring down the grade ahead and an impatient empty truck right behind me.

Jim Neiland said the snow still blocked the road to the higher area on the May trip so I spent all the time in the Ape Cave area and on south. I found a nice stream flowing in a new channel on the flat above Ape Cave entrance. The north "new" channel was all but filled and the west "original" channel was dry. A new channel had formed between them and was well developed with several inches of clear running water. There seemed to be little movement of material in the bottom of the stream and that seemed very odd later on when

I found the water on downslope to be quite colored with silt. There really had not been much increase in debris on the flat, just the changing and deepening of the stream channels. Last year I had put a steel post into the bed of a small channel in the woods. Now, it was the new main stream. I found the place but no sign of the stake. The surface had been eroded a foot or so thru both recent debris and the old soil to an old lava surface. That left the stake with no support I assume. My post didn't seem to be around and I doubt if it floated off so I suspect someone "collected" it.

On upstream northwest of the flat on the slopes by the falls, there was part of the skeleton of a young elk. Apparently a winter kill. There were fresh elk and deer tracks in the area so someone survived. There was some water flowing on the surface of the flat near the bend of the road north of Ape cave and some seeping thru the "dam". I was surprised because I had just come down the old

channel from the falls and knew it was dry. In fact where it branched off, its bed was

nearly a foot above that of the active stream. All of that water was coming from the ridge to the west where falling water could be heard. Thus, unless the main channel refills, heavy runoff into the "dam" area appears unlikely. Also, a fair channel has developed along the northeast face of the "dam" which would probably tend to drain the area if there was flooding. That channel used to be there before the eruption and used to flow into the upper end of Hopeless Cave. Could it do so again and flush out that cave? We will see.

Having checked all the stations in that area, I drove back down the road a few blocks and parked in a small flat where my boys and I had camped in 1964. I had a station in the canyon to the west and wanted to see if I could still find it. Sure enough it was still there on a limb of a tree, one of the "Denbo" stations. According to my readings about a foot of debris had washed away from the general area and the stream channel which was just to one side had eroded down another foot. On south on the debris fan at the mouth of the canyon about 10 inches of new deposit was recorded. The stream now ran east of its previous route and soon came to the road which it follows for several hundred feet until it slanted off into the woods down an old road west of Lake Cave. The stream used to run on south from the canyon to where it was restricted between the ridge on the west and an upthrust of lava. There seemed to be only a couple of inches of new debris there. I had assumed that most of the flow had followed that route and was anxious to see where it lead. It was rather disappointing to find that the flow looped on around the lava and came to within a short distance of the road where it was joined by other flows from the other side. On further, the flow split and rejoined repeatedly. In what had been lower places in the lava, the surface was covered with a smooth layer of the sandy debris but there was little or no material in the steeper areas in between. There were a few interesting openings in the lava crust. However, I have looked into so many such holes in the past and found nothing that now I just walked on by. Soon, the slope increased a bit and there were fewer basins of deposits. It was sometimes hard to follow the channel in the short brush. Finally, after one such pitch, there was a small basin only partially filled with a layer of deposit which had a distinct slope and sloping edges. This was obviously the end of the branch I had been following. When I returned in June the area looked the same so it would appear that there had been no activity in between. There were at least half a dozen stump casts in the area but none that seemed to be draining the area. In May, there was a distinct sound of running water

to the east so I decided to check it out. A few hundred feet and I found myself in the taller timber at the edge of a canyon that must have been at least 30 feet deep. A waterfall a short distance upslope was the source of the noise. I suspected there would be a stream in the area but certainly didn't expect to find a canyon. Naturally I followed it as I suspected it would lead to the north end of Green Mountain where I was planning to go anyway.

It was easy travelling in the woods on what seemed to be an old Forest Service trail. At least it seemed to be better than a game trail. It was a bit gloomy, almost spooky, under the trees. That feeling increased when I ran into the remains of a deer that had recently been torn apart by scavengers. Of course, it could have been a sasquatch. A friendly one might be OK but I certainly didn't want to meet a hungry one.

I was a bit bothered by not being able to see a sign of Green Mountain or any other landmarks. However, it was soon obvious that the canyon began to get shallower and I knew I must be getting close. The stream turned west and quickly opened out onto a flat covered with an assortment of old trees including some big old maples. The water here was filled with silt, a sharp contrast to the water beside the road a mile or so back. On the May trip it was getting a bit late, I was beginning to have aches and pains in the legs and I was a long ways from the road at a time when there was an eruption alert. Thus, I started back up the east side of the stream. The canyon itself seemed to be cut into softer material between or beneath thin lava flows. There were blocks of lava in the bottom of the canyon and small segments of exposed lava crust in places near the rim. None seemed to be over a few feet thick. The canyon ended (or started) where the water flowed over a lip of lava and down a steep bed of boulders. The thin lava crust had been undercut on the west and I could see a dark opening so I crossed on a well used game trail and checked it out. It didn't look like something I wanted to push at that moment. There is a similar cave under the lava at the head of the canyon west of the road below Ape Cave. A short distance upslope, the water was again running in a small "canyon" perhaps 10 feet deep. Then, things got really interesting. There was a major fork of the canyon leading up to the east but it was dry. The east wall was a tumble of lava blocks. Of course I followed but was disappointed when it ended in more broken lava a short distance upslope. There wasn't an obvious opening in the terminal wall but also no plunge pool below and no particular streambed leading to the upper lip. This should not be too far southwest of the Lava

Cast picnic area and I made a promise to myself to return for a careful look. The wet fork canyon soon ended in another waterfall. From there the stream meandered thru the trees and the fresh layers of debris until it reached the road. A short hike on back to the car and I headed home from the May trip, satisfied in getting some answers to some questions but with several things to be checked out on the next visit.

In June, I followed a Forest Service pickup and small trailer loaded with culvert pipes for a while then stopped to recover some steel posts that were hidden beside the road. I caught up to them again at the end of the road where a crew was working the pipes into the main channel across old N818. By the time I had my pack loaded and had recovered some more gear, they had left. The pipe in the channel must have been less than 2 feet in diameter and looked rather insignificant in the partially filled ditch. There was a pile of smaller pipe beside the road apparently for use on up the road. I wonder if they would have used that size if they had followed the changes in the area the way Dr. Halliday and the rest of us have. There seemed to be a number of channels crossing the road just west of the main channel but the mound of debris crossing the road seems to be unchanged. However, a small new channel has formed along its western edge. The lupine and seedling conifer trees are still present on the mound but apparently had not started new growth. It did seem strange that I did not notice conifer seedlings in the unworked debris on the old roadbed just beyond. Perhaps there is more dirt mixed in with the mound material.

The lower entrance of Sand Cave seemed to be filled in a bit more. Just inside the upper entrance there were deep deposits with recent cuts but I could still see one of Dr. Halliday's stations. The path of wet material outside hinted that water had been flowing into that entrance within the last few days. Most of it had come in from the east edge of the sink where a branch of a channel apparently had been spilling in. Mud Pond Cave entrance seemed to be about the same but inside, there seemed to have been more erosion and the drop into the lower level looked too steep and high to attempt. In the rush, I had grabbed the wrong flashlight and I couldn't really see the bottom. One thing I am certain of. Water had recently been flowing downslope from the entrance sink of Mud Pond. Probably the whole cave had filled and the excess had run on. However, the thought did cross my mind that the water might have come from a resurgence inside the cave. That would of course have some interesting implications.

There had obviously been a lot of reworking of the debris across old N818 and a little water was still present in the ditch at the turnoff to Gremlin Cave. At one place there was a depression perhaps 14-16 inches in diameter and 5-6 inches deep where water was obviously flowing into the bed. I diverted a bit more flow into the area and it quickly filled. Interesting to speculate about but not likely to be anything worth digging out. There were fresh footprints of humans going on down to Gremlin Cave and also at Flow Cave and I wondered if a group had been into the area the previous weekend. There appeared to be little change in the debris around Gremlin Cave and no change at Little Peoples. However, water and possibly debris had obviously been seeping between the sandbags and into Little Peoples.

When I started for Little Peoples from Flow, I went further to the south than usual and soon found myself in a small clearing surrounded by holes. I was sure I must have been in the area before but it didn't really look familiar. I assumed it must be an area a group of us had looked at years back so just kept going but heading more to the north. In a few minutes, I realized I was then in the area mentioned above. There are several small crawl caves which we had only partially explored. I really don't remember the first place. During one of our first trips into the area in 1964 or so we had found a hole that Robert and David could both get into and they had flushed out a bat. That was a bit unusual as it was summertime. We had never been able to relocate the place and I think it is south of Little Peoples. Maybe, that is what I found. Anyway, next time.

Early on the morning of 15 June I was back in the area to check out Upper Ape Cave, the debris to the west and the channel up to Little Red River. I made my way thru the wet brush from the road with the usual diversions and side trips. I don't know why that short bit of trail gives me so much trouble. I found footprints again. I wanted to check on the skylight but soon gave up. The brush was too wet for much such looking and I obviously needed Jim Neiland as a guide. Next, I took off to the west across the debris. It was obvious that there had been reworking of the flow possibly involving some rather large material. A station in the area indicated an accumulation of 10 inches of material in the last year. Just beyond, I expected to find the canyon leading to the beaver pond but it wasn't there. It had filled. Then I wondered why my yellow plastic station markers were tied so low. As soon as I measured, it was obvious. Over 3 feet of material has accumulated on the debris fan east of the beaver pond. That is rather impressive since it seems to be off the main flow and must

cover an area of at least half an acre.

My other objective was to follow the channel to Little Red River and that was an interesting trip. I made the mistake of starting up a side flow which meant fighting a lot of wet brush. Finally, I came to the main bed which ran southwesterly across the slope or at least it seemed like it. It was 10-15 feet wide and 3-10 feet deep with obvious scouring of the lava which was the bottom in most parts. There was little indication of material spilling over the sides of the bed. I still find it hard to imagine all of the rocks and finer material I had seen for miles below having passed thru this narrow shallow path. I think one of the boulders I saw stranded in the channel was 5 feet in diameter. For you cavers, I found some. The roof of a lava tube had been worn away and I could look back into a shallow tube with a very rough floor. It seemed to be filled with debris and not worth the crawl. However, the roof span was about 5 feet so it might have been quite a cave once. There were several exposed log casts in the same area. On further upslope, a slot had been worn down into another cave which was now filled with sediment. What a waste. Several other indications of caves were seen. It makes one wonder if the stream followed an old cave course or if it had into cut several different ones.

I was not alone in the area. There were fresh bear tracks in the silt of the stream. The hind foot was 6-8 inches long which I think is rather small. He was headed down so I went on upward. I think I am not disappointed we didn't meet. Finally, I reached the Little Red River area. I thought I remembered the area from years back and took off downslope to an old road we used to use. Sure enough there it was but with fresh jeep tracks! I had assumed it had become impassible years earlier. There was a plastic flag on a bush and then several more. This always

makes me suspicious so I wandered off into the open area to the north and found a fair sized sink. My boys and I had found several in the area years ago one of which had a small cave at one end. I remember trying to relocate it one night when I had a class along. Several of us had wondered around on the flat without success. We had used the lights of the others on the slope above as a landmark. I know it was a crazy thing to do but thats how some people are. This sink cannot be seen from the old road and I suspect we walked right by it that night. Oh well.

A little more hiking and I am back at the car and having a bit of breakfast. I had parked off the main road beside an old logging road but could see recent tire tracks leading in. Of course, I had to investigate. Soon there were the remains of a hunters camp which I expected. Then the country opened up a bit and I was at the edge of Swift Creek Canyon. I had never thought of it before but there was a beautiful view of Mt St. Helens. Naturally the camera was back at the car. I was still feeling peppy so I located the camera and returned for a few shots thru the haze and fog.

It was still early, only 9 AM and I was feeling better than usual so I decided to have another look at the north end of Green Mountain. This time I parked closer to the Lava Cast Picnic area and headed into the woods across the road. Sure enough, I came out onto the debris flow in about 30 feet. Water was no longer flowing beside the road and I assumed the rest of the creek would be dry. I worked my way on down to the end of the flow without trouble and found no change from May. Then I headed for the canyon. As I approached, I suddenly realized I could hear running water. Sure enough, there it was, not as much as in May but still a good flow. Obviously I was going to have to check that out on the way back. In a few more minutes I was back at the end of Green Mountain and into new territory. A little ways on down the west side, there was another debris deposit in a beautiful stand of old, large fir trees. As I recall, the trees were 1-2 feet in diameter. The debris formed a flat floor and in many places it spread as far as you could see. The whole area was very impressive. After a bit the stream divided into two shallow meandering forks. After following the east one a short distance, it seemed to be spreading out into a very shallow pond so I went back to the other. This one ran to the edge of the accumulation and seemed to disappear into a small crack in some exposed lava. I expected the flow to continue on down beside the mountain but soon it was obvious it didn't. The flat tapered off to the west and the taller trees contin-

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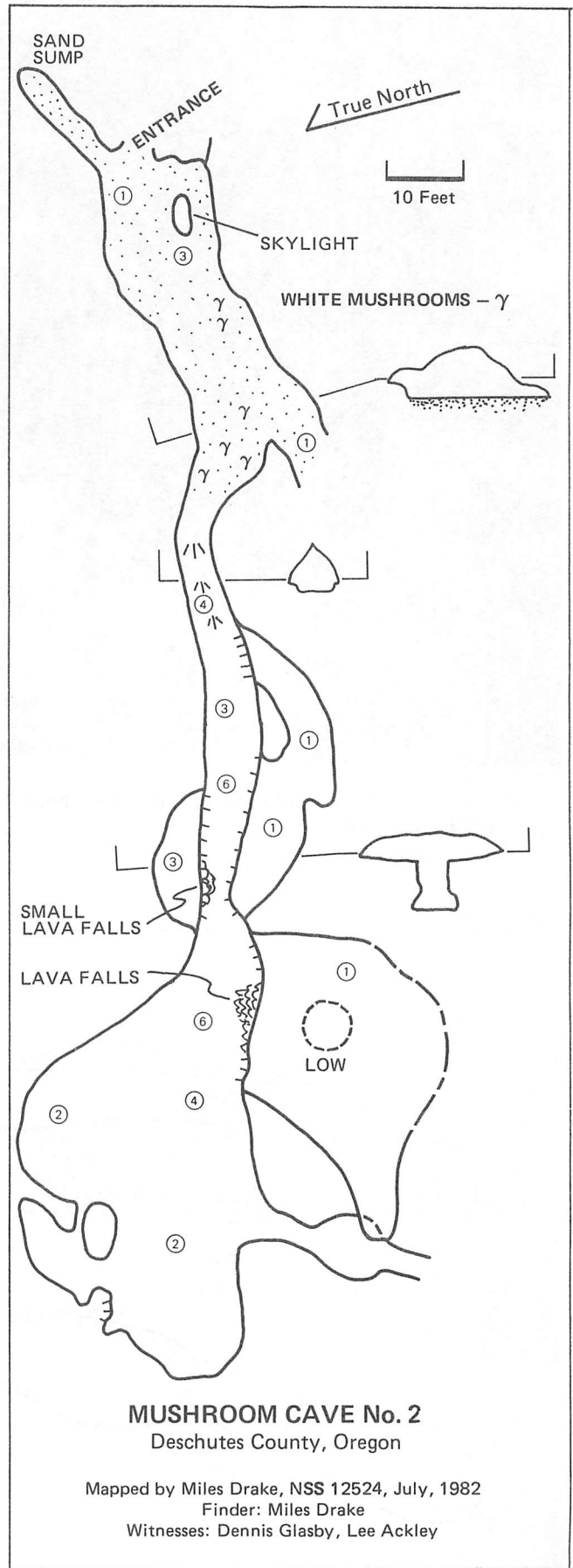
ued along a stream channel that was a few feet deep and up to 6 feet wide. It was also not easy to follow with brush and limbs scattered about. The channel seemed to be headed out onto the lava flow and in a westerly or northwesterly direction. I didn't think to make an accurate check. I could easily see that Green Mountain was quite a ways back, the ridge to the west was further away and there was a ridge rather close to the north. I began to think the stream might actually be going toward Grass Lake impossible as that would seem. No matter, it was now close to noon, it was getting hot and I was a long way from the car. The determination of the fate of the stream would have to wait for still another day.

There was a pile of lava boulders near the end of a timbered ridge to the north and I headed for that. There were the usual openings into small caves in the area. On up-slope a short distance I looked back and into what might be a real cave. That I had to investigate. It only went a short distance to a lava fill, probably associated with the upthrust I had seen earlier.

It was getting hot and I was beginning to drag a bit. Thus my notes and recollections of much of the rest of the trip are incomplete. There were more openings but none as inviting as the one above. Fortunately there was a fairly good game trail to follow and the timbered ridge was just to the north so there was no way to get lost. Finally after what seemed like a long distance but probably was only a mile I came over a rise and saw a bed of gray sandy debris. I had made it back. The car was only a couple of hundred feet further and was a welcome sight.

I remember going into Grass once Lake with my boys on a fishing trip. I cannot remember what route we took but I think it must have been about the same as this trip. I am not sure the area is worthwhile if one wants to do serious caving but I certainly would like to spend some more time snooping into some of the holes in the area. I certainly wouldn't recommend a hot summer day though.

Of course I never did get back into the canyon to see where the water was coming from. I sort of regret that but then thats the was things go. Maybe next time.

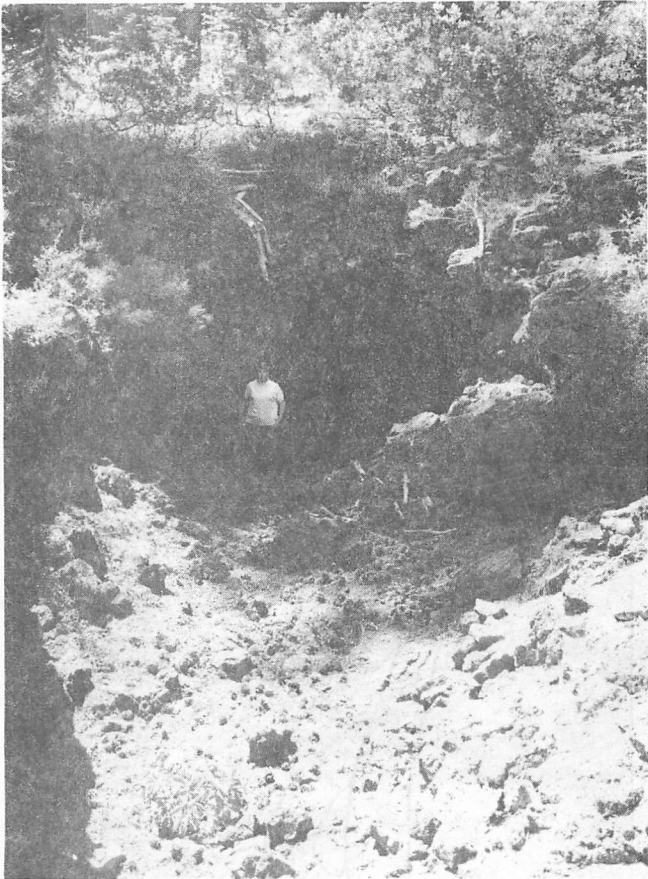


MUSHROOM CAVE No. 2
Deschutes County, Oregon

Mapped by Miles Drake, NSS 12524, July, 1982
Finder: Miles Drake
Witnesses: Dennis Glasby, Lee Ackley

LOST CAVE

by Charlie Larson



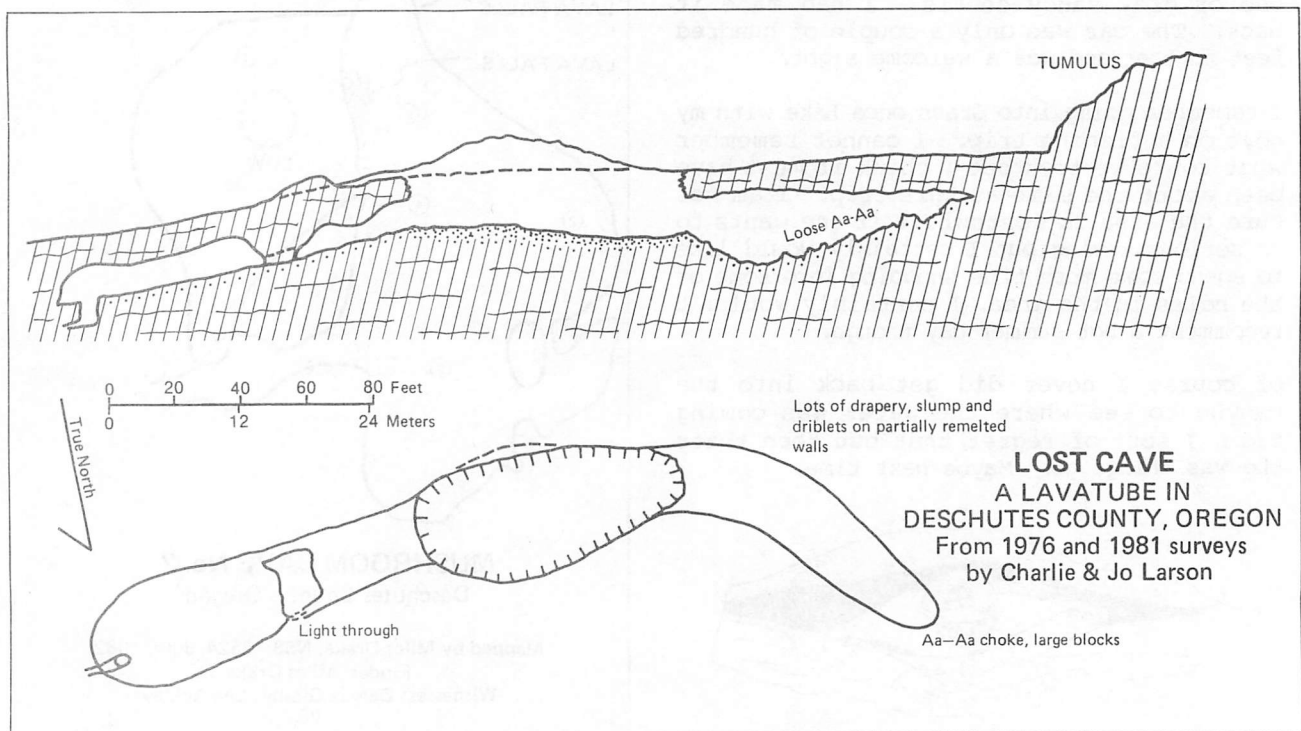
Looking west into the entrance sink of Lost Cave. Photo by Charlie & Jo Larson.

Lost Cave is located not far horizontally, but relatively far vertically, upslope from the Moss Carpet Cave complex in the North Siah System (see March, 1982, *Speleograph*). Jo and I and Ed and Kathy Block had stumbled on the cave in 1976. It is only a stone's throw off of F.S. Road 2022D, but we weren't able to relocate it until Nov., 1981, hence the name Lost Cave.

This could be the "Siah Butte Cave," listed for many years in OSS files, but its likely there are larger, perhaps even more obvious caves nearer Siah Butte.

Lost Cave is a contemporary of the rest of the North Siah System. It is short, exhibits some vertical complexity and, by itself isn't especially interesting. However, it offers some insight if regarded as a part of the system. It formed in a sort of helter-skelter, blocky flow, much of which escaped through the tube, and the last part of which accumulated as a 15-foot high tumulus about 30 feet northwest of the entrance. Signs of overflow via lobes and one-time surface tubes are abundant and account for the prominent lateral overflow accumulations around the entrance area.

The elongate entrance sink is probably an original feature—a cavity formed as the last lava



GUIDELINES FOR SAFE CAVING

1. Leave trip plans—destination, time of departure, expected time of return—with a responsible person at home.
2. Wear heavy shoes and hard hats. Hard hats protect cavers' heads from low ceilings and falling objects; hat mounted lamps leave the hands free for climbing.
3. Each explorer should carry at least two sources of light. Cavers often carry a third emergency light source such as a candle and waterproof matches.
4. Keep the group together.
5. Enjoy formations, artifacts or animals, but collect only litter.
6. Always go caving with at least one other person.

This brochure is yours to keep. However, there is a limited supply. If you do not wish to keep it, please return it or pass it on to someone who can use it.

For information contact:

ST. HELENS RANGER DISTRICT
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AMBOY, WASHINGTON 98601
(206) 247-5473

GIFFORD PINCHOT
NATIONAL FOREST
500 W. 12th Street
Vancouver, Wash.
(206) 696 - 7500



NATIONAL SPELEOLOGICAL SOCIETY

This brochure has been printed through the courtesy of the Oregon Grotto of the National Speleological Society, in cooperation with the U. S. Forest Service. The society is dedicated to the conservation, exploration and study of caves. For information about the society write to: National Speleological Society, Cave Avenue, Huntsville, Alabama 35810.

APE CAVE



Photo by Charlie & Jo Larson

A GUIDE FOR EXPLORATION

MOUNT ST. HELENS NATIONAL VOLCANIC AREA

GIFFORD PINCHOT NATIONAL FOREST

EQUIPMENT YOU WILL NEED

To safely explore the cave, you should carry at least three sources of light. A coleman lantern provides ample light to view cave features and to watch your footing. A flashlight with strong batteries can be used to spotlight features and will provide a back-up light in case the lantern fails. The temperature in the cave stays near 42 degrees F *all* year. Wear a sweater or jacket. Sturdy shoes should be worn, the lava floor is sharp and rough in many sections.

PROTECTING THE CAVE

Caves are delicate and must be used wisely to avoid damage. Unlike the surface environment, which in time can heal its wounds, a cave once damaged remains that way forever. For this reason, visitors are encouraged not to take food or beverages into the cave. Rock collecting, acts of vandalism, and littering are strictly forbidden. Residue from railroad flares, burning paper, or other impromptu torches leave a residue that is unsightly, damaging to cave life, and irritating to fellow explorers. Your cooperation in protecting the cave will ensure a quality experience for generations to come. Remember the cave explorer's motto: "Take nothing but pictures, leave nothing but footprints, kill nothing but time."

TO SAFELY EXPLORE APE CAVE YOU WILL NEED:

- Three Sources of Light
- Sturdy Shoes or Boots
- Warm Clothing

APE CAVE

Ape Cave is widely known as the longest intact lava tube in the continental United States and has a length of 12,810 feet. The cave was discovered in 1946 by Lawrence Johnson of Amboy, Washington while logging in the area. Following discovery, the cave was extensively explored by a local group of young outdoorsmen who called themselves the St. Helens Apes. The cave was named for the organization.

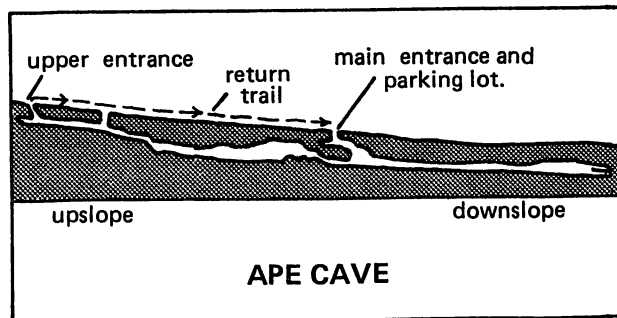
In 1979, Ape Cave was designated a National Recreation trail due to the unusual recreation experience it offers, and in 1981, was declared part of the Mount St. Helens National Volcanic Area in recognition of its unusual geologic interest.

LOWER CAVE

The cave is divided into two portions, upslope and downslope, from the main entrance. The downslope portion of the cave extends for approximately 4,000 feet before ending in a sand fill. Easily traveled, it is recommended for most visitors.

UPPER CAVE

Upslope from the main entrance travel is difficult, involving nearly 7,000 feet of passage floored mostly by breakdown. Breakdown is the rock rubble caused by collapse of the passage walls and ceiling. The upslope portion is suggested only for *well-equipped* explorers. For those who explore upslope, it is possible to exit from the cave's upper entrance, where a return trail on the surface leads back to the parking lot.



GEOLOGY

Mount St. Helens is one of the most active volcanoes in the Cascade Range. The most recent eruptive episode began on March 20, 1980, with an earthquake measuring 4.1 on the Richter Scale. After almost two months

of small steam and ash eruptions, a magnitude 5.0 earthquake on the morning of May 18, 1980 caused the bulging north side of the mountain to give way, creating an avalanche of rock, mud and ice which traveled 15 miles down the North Fork of the Toutle River Valley. The avalanche was followed by explosions directed laterally and vertically which killed nearly everything in their path. The eruption moved approximately three cubic kilometers of the mountain sending an ash cloud 14 miles (20 km) into the atmosphere. Smaller eruptions have since built lava domes on the crater floor, blown them away and built them again. A series of non-explosive dome building eruptions starting late in 1981 produced a composite lava dome 600 feet high by 1982.

The eruption which produced Ape Cave 1,900 years ago was less explosive in nature than those experienced recently.

FORMATION OF THE CAVE AND ITS FEATURES

Lava tubes, such as Ape Cave, form in flows of ropy pahoehoe basalt when the flow crusts over with cooling lava. At the end of the eruption, lava drains from the tube leaving an open tunnel.

Lava is an excellent insulator, so once the lava stream is roofed over it is possible for the lava to flow through the tube for many miles with little loss of heat. In the case of Ape Cave and other caves in the area which carried lava for long periods of time, the lava stream was able to erode downward, cutting into the pre-flow land surface. The cutting activity caused many portions of the cave to have passages with a high, narrow cross-section. Where sections of wall lining have fallen away, it is possible to see hard reddish soil which was baked red by the heat of the overlying lava.

Once the eruption ceased and lava drained from the tube, the cave was left as we see it today. As the lava level dropped, hot gases caused melting of wall surfaces (much like a very hot oven) forming a dark shiny glaze. In places the glaze slumped while still molten to form a pleated pattern of ripples.

During this period, lava stalactites formed on the ceiling and stalagmites formed on the floor where globules of dripping lava fell from stalactites. Lava formations are not common in the cave and where they do occur are small and *very fragile*. The few formations which existed in the cave have been largely removed as souvenirs by early explorers and are no longer here for

you to enjoy. This points out the need for everyone to help protect the few remaining formations so future generations can thrill to the same discoveries you make today.

Lateral "flow marks" (minor ledges) along the walls mark stages of lava decline in the tube. When the lava level dropped then stabilized for a period of time, a flow mark was produced along the wall, much like a ring is produced in a bathtub.

In the lower portion of the cave, is the Lava Ball, a block of solidified lava which was carried along in the lava stream only to become wedged in a narrow portion of the passage twelve feet above the floor as the flow receded.

The sandy floors found in the lower cave formed when volcanic ash, pumice, and other debris were washed into the cave through the lower entrance following an eruptive episode geologists call the Early Kalama Period, 450 years ago. Flooding has carried fresh ash and sediment from the recent eruptions across the lava flow above Ape Cave. The sediment was diverted away from the cave but can be seen along the road several hundred feet upslope from the parking lot.

At the lower end of the cave the passage is divided by a lava diaphragm with both an upper and lower level. The lower level is blocked by sand which is being reworked by a seasonal stream. In the upper level are a series of holes extending downward to the level below and surrounded by bubble-rings. These were caused by molten lava surging up from below, then retreating.

Once the cave started to cool, breakdown of the walls and ceiling began to occur. This breakdown was mostly caused by contraction-cracking of the cooling tube walls. Where breakdown has extended to the surface, entrances or skylights were formed. Seldom is the cave roof more than 20-30 feet thick. No collapse has taken place in recent times.

The cave wind you feel is nearly always present and is sometimes as great as seven miles per hour. This is caused by differences in air temperature inside and outside the cave. During the winter, warm cave air rises like warm smoke in a chimney and pours out the upper entrance. This chimney effect reverses during the summer when cool cave air drains down-slope through the cave and pours out the lower main entrance.

receded—rather than a subsequent collapse of a solidly roofed-over chamber. The rugged Aa-Aa lava which floors the rest of the cave is mostly obscured in the sink by tephra and vegetable matter. The cave's morphology strongly resembles that of the other cavernous segments of the North Siah System in that it occupies a "step" or area of lava impoundment—a lava pond which as it drained created the cave. To carry that thought a little further: the lava which flowed in the lower parts of the system may never have flowed through Lost Cave, and vice versa. So..... when does a system stop being a system?

OG CHARTER MEMBER VISITS

Recently we were pleasantly surprised by a call from Ethan Scarl, a long-absent charter member of the Oregon Grotto. Seems he is vacationing on the west coast and wanted to renew a few old caving acquaintances.

Ethan met Silvers and Larson at Ape Cave on August 1, and toured the upper end of the cave and the recently completed trail between entrances. He was visibly impressed with the cave's popularity and the trail; dazed perhaps, at the number of visitors even on a rainy day. The last time he had visited the cave was in the mid-'60s.

Ethan was a charter member of the grotto and also its first treasurer. In August, 1965, the Oregon Grotto Store first opened, with Ethan as storekeeper. Most Justrite lamp parts were offered, as well as Fibremetal hardhats.

BOB & BOB

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- JUMARS
- BUMPER STICKERS
- PREMIER LAMP PARTS
- PIGEON MOUNTAIN ROPE

- JUSTRITE HAND LAMP PARTS
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