



THE CASCADE CAVER

International Journal of
Vulcanospeleology



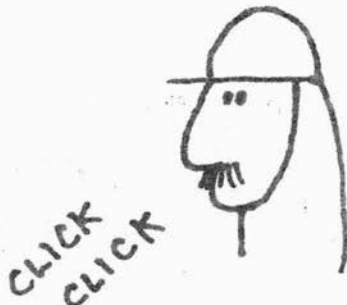
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HOW TO LIGHT A CARBIDE LAMP



1. Put water and carbide
in lamp and open
clicker several notches.



2. Hold hand over
reflector to
collect gas.



3. To impress friends,
hold hand over
reflector a long time.



4. Rapidly withdraw
hand across flint
wheel.



5. If all goes well,
the lamp will light,
and ...



6. Your friends will be
impressed.

FZZT

7. Sometimes, the
lamp doesn't light,
...



8. In which case
you may flick
your BIC.

Frederick Dickey, 1982

COMING EVENTS

DEC. 21 Grotto Meeting 8:00, 1117 36th Ave. East, Seattle
JAN. 18 Grotto Meeting 8:00, 1117 36th Ave. East, Seattle
FEB. 19-24 Ski touring trip to Yellowstone.

GROTTO NOTES

Larry McTigue, the Grotto Program Chairman, has arranged for the NSS slide show on Caves of Turkey to be shown during the meeting Jan 18. He will be trying to bring these NSS programs every other month to the meetings.

NEW MEMBERS

Tom Miller
c/o Dept of Geology
Western Washington University
Bellingham, WA 98225

Benjamin Tompkins
1045 103rd NE
Seattle WA 98125
524-9526

CHANGE OF ADDRESS

Frederick Dickey
15155 SE 41st ST
Bellevue WA 98006
644-2623

This months cover was drawn by Frederick Dickey.

CODY CAVE

By David Klinger

The 23-24 October, 1982 trip was on. I jumped into my car and made my way across the lava highlands of Eastern Washington to Sand Point, Idaho where I picked up my son Mark. Mark had just settled in for the winter and had not been caving for over seven years so he was ready to go. We then headed north thru the rain to Nelson, B.C. and Phil Whitfield's pleasant home. Phil had said that as long as at least one other person showed up, the trip was on.

The next morning the three of us headed north under overcast skys to Rena's Pet Rock where we made a sharp left turn and headed up for 11 km to the trail leading to the cave. A short walk took us to the register where our passage was properly recorded before we headed on up to the mouth of the cave. Mark waited at the low wide entrance while I accompined Phil on up the side of the mountain to a sink where a stream disappeared into the earth. We placed some green dye into the stream and then hurried back to the cave to see if we could find any trace of the green dye.

Cody Cave is an easy horizontal cave with ladders and ramps where needed. These were placed there by B.C. Parks in the late sixties when they took over responsibility for the cave. Phil directed us through a couple of tight crawls, why go the easy way, and then pointed out many interesting side passages. We had a great time exploring the many interesting features of the cave and figuring out how we got into one or two sections as Phil made it his point that all members of the trip should be prepared to lead out if necessary. We looked for green dye but without success in either the cave or nearby streams. After spending about three hours in the cave we departed taking the register out for the winter. At the parking lot we met a group being led by a local "Guide". Their only equipment consisted of hand held lights. Phil has an educational job ahead.

We then headed for the caves of Ainsworth Hot Springs where we took plenty of time to explore the tunnels and enjoy the hot water. Back at Phil's home, we enjoyed a steak dinner and his home made ice cream. After dinner we were treated to a TV tape of Cody Cave. Thanks, Phil, for your great hospitality. It was a wonderful weekend.

MOUNT ST. HELENS OCTOBER 1982

By William R. Halliday, M.D.

The first weekend in October was almost a wholly unmitigated disaster -- nearly 600 miles of driving with little to show for it because of unannounced road closures in the Gifford Pinchot National Forest. But the next weekend more or less made up for it.

On October 2, the problem was getting together with our radio crew in order to be able to study the Spirit Lake pseudokarst. Jim Nieland had told us that road 99 (the Meta Lake road) was probably closed, but we planned to use road 2560 if it was (and it was). But there turned out to be a road block on road 25 also (the main road between Randle and Cougar), for paving, of all things! It turned out that the radio crew was on the south side of the paving and we were on the north side, unable to communicate with each other and both growing more and more frantic as the morning wore on. Finally we drove back to Randle, studied Forest Service maps and aerial photos, looking for bypass roads that might be feasible (there weren't any). So we called the Krehbiels in Battleground, found out where the radio crew was, concluded that there was no way we could get to them and to road 2560 (on their side of the block), and cancelled the Spirit Lake work. Fred Dickey went off hunting a viewpoint where he could at least see some of the blast damage, and we drove around to the cave area via Longview to check conditions there.

In the cave area, we found dismaying deepening in the erosion channels in the Hopeless Cave Mudflow dam, at the hairpin curve above the main entrance of Ape Cave. A lot of water must be flowing over the top when it rains hard, and the dam appears in serious danger of being breached this winter. This would allow headward erosion to channel large quantities of mudflow material into the main entrance of Ape Cave, if the volume of flood water is enough. Does anyone know if the Gifford Pinchot National Forest is going to do anything rational about the monster it created here without an Environmental Impact Report?

Another problem: we found dozens of people camped on the very fragile vegetation around the Lava Cast Picnic Area. Does anyone know who this was, or how come they were allowed to camp there?

All this seems a dismaying start to the management of a brand-new national monument under U.S. Forest Service management.

In the upper entrance of Sand Cave, we did find that there has been some reworking of the 1981-82 mudflow tongue that nearly filled the upper end of the cave. But little if any additional mudflow debris has entered.

A week later, things went much better. After an iffy morning, the clouds cleared and we had a magnificent view, looking up into the crater and at the dome from Spirit Lake, about 3 miles away. Even road 99 was open by the time we were ready to come back out of the Red Zone. And at the edge of the zone on the way in, we had the pleasure of meeting a UCLA group led by Bill Gustafson who reported several Vancouver Island caves a number of years ago.

The entire Spirit Lake area looks more like a parched southwestern desert (plus a few yet-unlogged dead trees) than the Pacific Northwest. It still is steaming at several points about halfway from the 1980 crater to Spirit Lake. The approach is from the northeast, and even the unchanged parts of the mountain look strange. The Sugarbowl Crater now stands out prominently from the new access road. The Neverending Ridge (which carried the main trail up the foot of Dog's Head) still is there, but that's all that can be said for it. The debris or pyroclastic flow which crossed the entire valley and next ridge to the north is an overwhelming spectacle.

Other than getting lost once on an unmarked fork of road 2560 we drove to Spirit Lake without incident. There we hunted for USGS or Corps of Engineers geologists, without success. We did find some construction company engineers and crew, on contract from the Corps of Engineers. The crew was busy bulldozing notable geologic features (part of the debris flow) to bury other geologic features (swallet points into which the lake is draining). I took photos of a couple of swallets which still remained, but probably they were covered later that day.

A few hundred feet southwest of the western tip of the lake, we found two large closed depressions, hundreds of feet across and 10 or 15 m deep. Probably these are geothermal kettles, resulting from rapid ablation of large chunks of the Forsythe Glacier carried along in the debris flow on May 18. Perched on the south wall of the larger depression is a more normal kettle a few meters in diameter.

Brand-new gullies with steep walls up to 20 m deep lead into both closed depressions. On the top of the debris flow here, roughly parallel to the gullies are many partially roofed fissures with small-scale vertical piping in the form of swallets and small round to oval sinks. Some similar examples are present in the bottom of the depressions, along cracks in what are basically the beds of intermittent ponds (dry when we were there). But here we also found some large sinks, up to 20 m wide and 5 or 10 m deep in the floors of the large depressions.

All these features appear to be the result of local runoff since May 18, 1980 rather than seepage from Spirit Lake. The bottoms of the depressions appear to be many meters lower than the lake's outlet swallets, and it appears that the lake swallets conduct the lake's overflow downward with a very steep piezometric surface.

The only vegetation noted in this pseudokarstic area was in some of the mud cracks in the dry lake beds. It consisted of a little moss and a few green plants less than an inch high. One sizable green bug was found in one of the mud cracks and collected for the Burke Museum - clearly an accidental visitor.

On the following day, a special WSS party of experienced climbers made the second attempt to locate and study post-eruption glacier caves on the other (south) side of the mountain. Largely because the Clark County Amateur Radio Club includes two Mazamzas who were willing to be our communications crew, we were able to reach the glaciated part of the mountain for the first time since the eruptions began. Actually we reached the upper end of a small unnamed hanging glacier at an elevation of about 7,000 feet, just west of the Swift Glacier cirque. It had a small, double-barrelled ablation cave in its

bergschrand, descending almost vertically behind the glacier remnant, which curved downward so smoothly that it looked as if it had been polished. Because we were running out of time I went down only about 10 m but the cave continued. Other than perhaps the Waterfall Pit at the back end of Big Four Ice Cave, I don't recall seeing or reading about any ablation cave in a bergschrend; information from readers would be appreciated.

We ran out of time before we could reach our main objective: the Swift Glacier. But we learned a great deal about getting around on ash-laden glaciated volcanos and should be able to move much more quickly and accomplish much more next summer within the limits of our permits --- if we get good cooperation from the weather and continuation of the marvelous assistance the Clark County Amateur Radio Club has been providing our research. For all of you hams who happen to read this: enormous thanks!

VULCANOSPELEOLOGICAL ABSTRACT

By William R. Halliday M.D.

Brunelli, Fabio and Scammacca, /Grotte Vulcaniche di Sicilia. 1975, Catania Club Alpino Italiano Sexone dell'Etna/Gruppo Grotto Catania. 54 pp plus 34 pp. of maps, photos, and tables.

American vulcanospeleologists were largely unaware of the major contributions of Italians in this field until Giuseppe Licitra spoke at the International Symposium in Bend, Oregon. This contribution by Brunelli and Scammacca is one of those which was essentially unknown in America. It is a catalog of the volcanic caves of Sicily as the title implies but includes littoral, aeolian, and other types of caves besides lava tubes. The latter, however, are the most important. Locations are given to the nearest second of latitude and longitude, elevations are included, and the list is correlated with the national catalog of Italian caves. There are 150 caves listed with descriptions and directions are included for only the first 25 caves. These are the first 25 caves in order of listing and not necessarily in order of importance or interest. Two glaciers, for example, chanced not to fall into the first 25 nor did the two caves described in 1591. But several of the 25 caves are of particular interest and are among those discussed by Licitra at the Symposium. The publication is particularly attractive and well edited. It contains a section on speleogenetic theory which makes me feel that I and others in this field must learn technical Italian. None of the caves of Mt. Etna are large by American standards, but clearly they have a great variety and a profusion of interesting features. This booklet made me even more eager to attend the 4th International Symposium in Catania next September, and I think that others will feel the same way once they see it.

P.S. The first cave listed in the book is located right in Catania, at #5 vial Michele Scammacca, in the lava of 122 A.D. The Sicilians really know how to live with volcanos and their caves!

ONLY FOOLS WALK IN WHERE ANGELS FEAR TO TREAD

A TRIP TO WINDY CREEK CAVE

By Steve Sprague

Saturday, September 18 was a good day to go caving. Carolyn Moore, Geary Sanders, Gary Sprague, and I met at the Northgate Park and Ride lot under a cloudless sky at what seemed at the time to be the early hour of 7:30. We finally got under way by 8:15 and picked up Jim Harp, his daughter Amanda, and Tom Miller on route to the trail head.

We were in the clear cut which marks the end of the road by noon and after a quick lunch hiked (stumbled, tripped, slipped, slid, bumped, and bush whacked) the approximately two miles to the cave. And it only took us three and a half hours!

The cave was worth every scratch and bruise. The cave is an extraordinarily complex maze with many tantalizing leads. I understand my three hour tour of the main passage covered about 80 percent of the cave. I got to see the EX-Pool, Mitch's Mud Room, and the Black Chimney. The formations were remarkable enough to coax my reluctant camera from my cave pack. Although we didn't have time to explore the area, the valley above the cave is, in the words of Bob Brown and Rod Crawford, "a striking example of karst topography".

Carolyn, Jim, Amanda and Gary took the prudent course and left the cave in time to make it back to the cars before nightfall. Geary, Tom and I decided to tarry a couple more hours, which forced us to travel the last part of the trail in darkness. Thanks to the prudent ones, who waited for the other three to stagger in after dark.

After making the trip, I have a few comments that may help future cavers visiting Windy Creek Cave. First of all, there are two main routes to the cave area. One heads generally south from the clear cut where the cars are parked. At about 3/4 of a mile the trail drops in a southwesterly direction into the valley, then works its way back north, up the other side of the valley to the cave. The other route starts on the same trail, but heads directly west after 3/4 of a mile on a ridge that cuts across the valley. After taking both routes, I think the second one is the best; it is shorter and has a smaller amount of steep sidehill traverse. Another tempting alternative may be the new clear cuts at the head of the valley. It was only 3/4 of a mile away as the bat flies.

Finally, I have some suggestions for the next group of fools that plans to visit Windy Creek. On the way in, nail reflectors or metal tags on the back side of the trees along the route. This has already been done to some extent, and the tags that exist were very helpful in the dark, but more of them are needed. Also, there are no tags on the ridge crossing the valley.

Only one more suggestion, get an early start. If you do all this stuff, you might even be able to talk St. Peter himself into Windy Creek Cave!

A letter from New York

Robert W. Carrol, Jr.

Last week was a busy vacation in which James Hedges of the USA Bulletin visited most of the major talus caves in the Northeast. We frankly tried to cram in too much in too little time, but saw many important details and found some new caves of interest. Perhaps most exciting is the Tuckerman Ravine "snow tube" which we visited on August 2nd. Please see the diagram I have inclosed. These caves have serious hazards - water exposure, drops, and massive collapses - though this one looked reasonably stable at the time. The idea of caves that annually vanish to be replaced by a different one the next year may turn off many people but this thing was impressive! In contrast to the puny stuff I described at Smuggler's Notch in 1978, which led to the wry comment in the Cascade Caver: "We have enough of these snow-melt caves in the Cascades.", this one had 750 feet of passage, 450 feet of it walkable, often up to 25 feet wide, with the main passage 240 feet long with 100-foot side leads. The total relief is 70 feet. Four streams traverse the system, three joining inside it. Just what the optimum size for a snow tube cave is is uncertain. Too early in the year and the cave is underdeveloped, too late in the year and it is melted away or too unstable. On August 2nd it had more passage than the largest caves in Massachusetts, Bennington county in Vermont, or St. Lawrence, Lewis, Franklin, Clinton, and Warren counties in New York. More mind-boggling to me is the estimation that if an average maximum of 1/10 mile of cave forms each year then 1000 miles of passage have formed and vanished on that patch of ground since the last Ice Age!!

Among the more permanent systems we have a new 750-foot gneiss talus cave which is also in Tuckerman Ravine at the 4250 foot level, new leads in the Mt. Horrid Ice Cave in Vermont which raised it to 650 feet. There are minor additions to Chiller and Gargantua caves in Vermont, a new 800-foot anorthosite talus cave in Essex county, New York, and a new 200-foot fracture cave near Eagle cave in Hamilton County, New York.

Eagle cave continues to suffer the ravages of vandalism and carelessness. Probably 80 or 90 percent of the fragile "scale" and "coral" are now a lost cause. One 6-inch "frond" was evidently abandoned in pieces when "collectors" found it too crumbly to take from the cave. At the other extreme, MOUNTAINS in New Hampshire is apt to be "lost" for many years because its exits are hard to identify, the going is nasty both above and below the ground, and the principal former resident talus caver, Miles Drake, has left New Hampshire probably for good. The geological controversy isn't getting anywhere either despite its potential urgency. Recent events, such as lightning striking the house of a geologist who was to have accompanied James and me last week, forcing him to back out at the last moment, have me very jumpy about not only fighting human apathy but also about things beyond human control, and I am not optimistic about the outcome for mankind.

What's left of the season I will mostly concentrate on the Adirondacks, new sectors, and extensive reconnaissance. The big talus find in southern Hamilton Co. is "up in the air"; the Fall NRO meeting will be too far away to make it an NRO project then, and I may or may not do it in September. Meanwhile, good luck checking out the leads in your region while conditions permit.

TUCKERMAN SNOW-MELT CAVE (8/2/82)

COOS COUNTY, NEW HAMPSHIRE

GRADE-2 MAP, AUG. 2, 1982

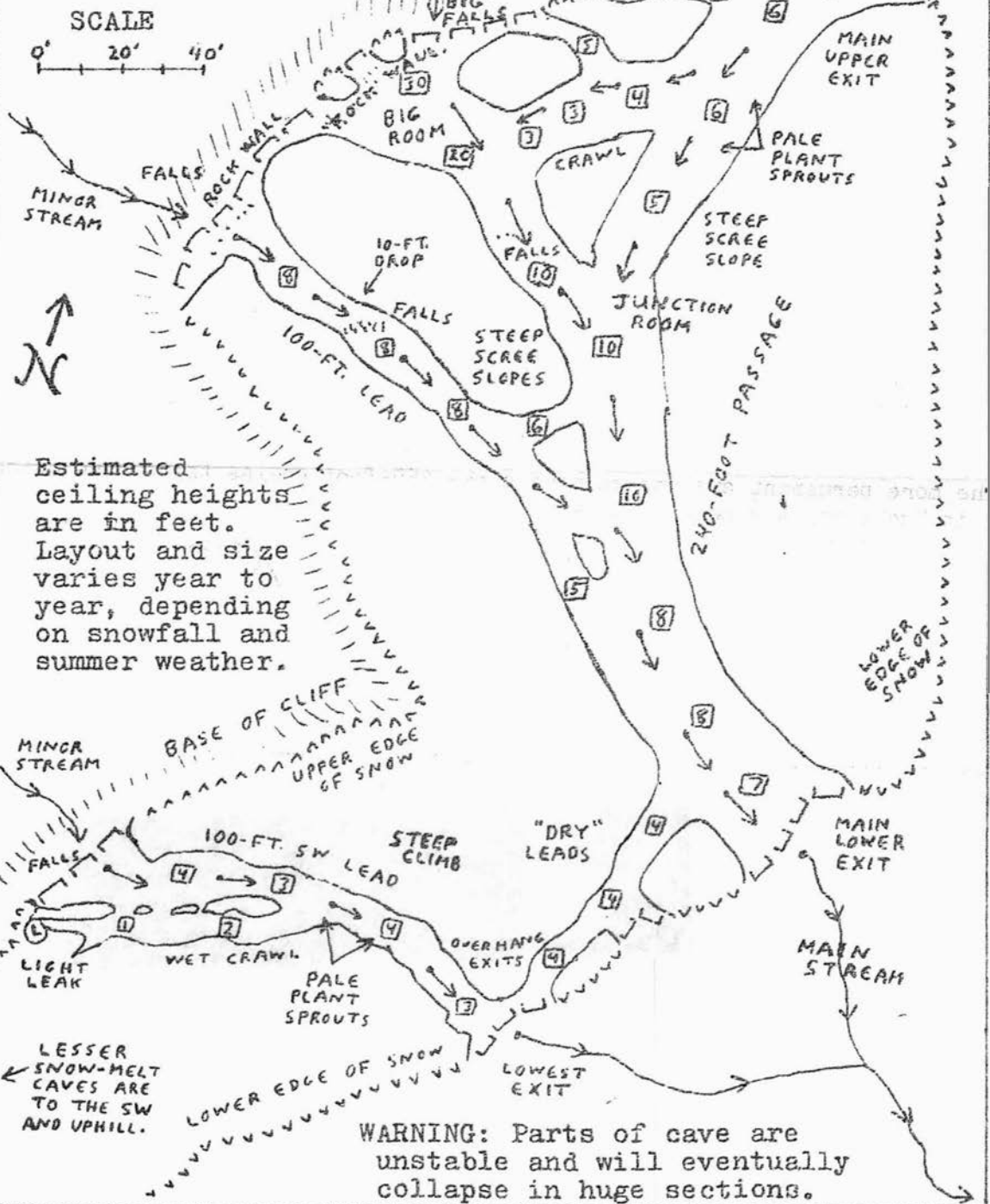
R. W. CARROLL, JR.

JAMES HEDGES

PASSAGE: 750 ft.

RELIEF: 70 ft.

ELEV.: 4350 ft.



Estimated ceiling heights are in feet. Layout and size varies year to year, depending on snowfall and summer weather.

LESSER SNOW-MELT CAVES ARE TO THE SW AND UPHILL.

WARNING: Parts of cave are unstable and will eventually collapse in huge sections.

Historical Note on Ape Cave

Richard L. Johnson

(Abstract from a letter to the Editor of Pacific Northwest magazine)

A friend of mine introduced [Pacific Northwest magazine] to me when he told me about the article written about the Ape Cave on Mt. St. Helens. He had remembered my mentioning the fact that it was my father who had discovered them.

I read the article written by William R. Halliday, M.D. in the October 1978 issue of Pacific Search and immediately sent in a order for two copies of that issue. One for my father, Lawrence L. Johnson and one for myself. The article written by Dr. Halliday is very good and accurate except for one date and that is the date of discovery. I cannot remember the exact month but it had to be June, July, or August of 1946 instead of 1951 as the article reads. I was part of my father's crew and the reason I know it was 1946 instead of 1951 is because I was discharged from the Army (WWII) in January 1946 and attended the University of Washington that spring term and then went to work for my father that summer. I went back to school in September so the month had to be either June, July, or August.

My father passed away in January 1980, so he would be very sad to know that Mt. St. Helens' big eruption on May 18, 1980 occurred and that there might be possible damage to Ape Cave.

Cascade Caver

207 HUB (FK-30) Box 98
University of Washington
Seattle, WA. 98195



Grotto meeting Jan 18th at 8:00